



Epi News



June 2004

The Buzz about West Nile Virus

As you walk from the forest just after sunset, you suddenly hear, "BZZZZ!!" Moments later, you feel a sharp sting in the back of your neck. SWAT!!!

For many years, scenes like this have been seen as an irritating but mostly harmless part of outdoor activities in some parts of Coconino County. For the most part, this is still true. However, this year these minor annoyances may become an increased health risk.

West Nile virus (WNV) first appeared in the United States in 1999. Since then, it has spread rapidly across the country. In several states, a pattern has emerged. In the first year the virus is present, few human cases occur. One year later, the state is hit hard by the virus. For example, in 2002 in Colorado, 14 human cases of WNV-related illness occurred. In 2003, Colorado had nearly 3000. Last year was the first time the virus was detected in Arizona, with 13 human cases reported statewide. In 2003, Coconino County Health Department identified WNV in two wild birds, one sentinel chicken, one mosquito pool and two horses. Already, Maricopa County has identified eight human cases this year (as of 6/8/2004). Experts at the Arizona Department of Health Services expect that many more human cases will occur this year across the state. Some of those could happen in our own back yards.

West Nile virus predominantly infects birds. The virus is transmitted from bird to bird through mosquitoes, which serve as vectors. Many species of birds are killed by these infections. Occasionally, mosquitoes that bite birds also bite mammals, such as humans and horses, passing on the infection. This can lead to illness and, rarely, death. The majority of mosquito bites, however, will NOT lead to WNV infection because most mosquitoes are not infected with the virus.

Infection with WNV causes a range of clinical disease in humans. 80% of people who become infected will experience no symptoms and will not be aware of their infection. 20% of those infected will develop a relatively mild illness called West Nile fever. Symptoms of this disease may include sudden fever, headache, muscle pain, nausea, vomiting, loss of appetite, eye pain, rash, and swollen glands. One out of every 150 infected people will develop one of the very severe forms of the disease: West Nile encephalitis or West Nile meningitis. Symptoms of the severe illnesses include fever, muscle weakness, changes in mental status (e.g. confusion), stupor, tremors, vision loss, seizures, paralysis, and coma. There is no specific treatment for these diseases, and there is no vaccine for humans. People who are experiencing illness of any kind should consult a licensed physician (CCHD cannot provide diagnostic advice).

Coconino County Health Department is busy conducting surveillance for WNV. Mosquitoes are trapped by CCHD and tested by the Arizona Department of Health Services for the presence of the virus. CCHD is also collecting dead birds, which will be tested for WNV if they meet certain criteria. Sentinel chickens are also tested for WNV infection. Report dead birds or mosquito activity by calling CCHD at 928-226-2741. Veterinarians should report positive WNV tests in horses or other animals to CCHD (By calling 928-226-2741).

Healthcare providers are essential partners with CCHD in surveillance for human cases of WNV illness. Surveillance is focusing on **hospitalized** cases of encephalitis and viral (aseptic) meningitis without an alternative cause. Physicians and other providers should telephone CCHD at 928-522-7920 if they see such patients. Physicians should also call if they receive a WNV-positive result from a commercial laboratory (these patients are considered suspect cases only). The CCHD Communicable Disease staff will facilitate confirmatory testing through the Arizona State Health Laboratory (ASHL) to determine if the illness is due to WNV. ASHL will test only **hospitalized** cases of encephalitis and viral (aseptic) meningitis for WNV.

Prevention is the key to avoiding the risks posed by West Nile virus. Avoid mosquito bites by wearing effective mosquito repellent and long sleeves and pants. Eliminate standing water on your property and in your community. To report mosquito activity, call 928-226-2741. For more information, go to www.co.coconino.az.us/departments/health/westnile/.

Remember, we all have to work together to FIGHT THE BITE and prevent WNV.



Communicable Disease Summary Report

DIAGNOSIS	TOTAL 2003	Jan '04	Feb '04	Mar '04	Apr '04	Jan-Apr 2004
aseptic meningitis	15	0	0	0	0	0
campylobacteriosis	69	3	2	1	0	6
<i>Chlamydia</i>	194	16	25	35	28	104
coccidioidomycosis	4	0	0	0	0	0
<i>E. coli</i> O157:H7 infection	2	0	0	0	0	0
giardiasis	8	0	0	0	0	0
gonorrhea	15	0	0	5	0	5
<i>Haemophilus influenzae</i> : invasive	3	0	1	0	0	1
hepatitis A	6	0	0	0	1	1
hepatitis B and delta hepatitis	18	0	0	1	1	2
hepatitis C	136	11	17	10	17	55
herpes genitalis	8	0	0	3	0	3
legionellosis	0	0	0	0	1	1
listeriosis	1	0	0	0	0	0
meningococcal invasive disease	1	0	0	0	0	0
MRSA	22	2	2	7	3	14
pertussis	5	0	0	2	0	0
RMSF	0	1	0	0	0	1
salmonellosis	28	1	3	1	2	7
scabies	2	0	0	0	0	0
scarlet fever	1	0	0	0	1	1
shigellosis	11	0	0	2	0	2
<i>Streptococcus pneumoniae</i>	25	0	4	2	1	7
streptococcal group A: invasive	17	0	0	0	1	1
streptococcal group B: invasive	5	0	0	0	1	1
streptococcal group B: invasive <30d	0	0	0	0	1	1
syphilis	4	0	1	1	0	2
trichomoniasis	1	1	0	0	0	1
tularemia	1	0	0	0	0	0
varicella	30	3	6	12	0	21
VRE	12	0	2	2	1	5
<i>Vibrio</i>	2	0	0	0	0	0
TOTAL	674	40	65	85	60	250

*Numbers indicate the number of cases diagnosed during the given year and/or month in residents of Coconino County. Data do not include cases still under investigation. Data are provisional and subject to change.